

What is claimed is:

1. A method for adjusting a lamp unit relative to an illuminating beam path of a microscope devoid of a beam homogenizer in said illuminating beam path, said microscope including: a microscope objective defining a pupil plane; an
5 adjustable lamp unit for supplying the light transmitted along said illuminating beam path and a detector for detecting the light power of the transmitted light, the method comprising the steps of:

measuring the integral light power downstream of said pupil
10 plane of said objective with said detector; and,

adjusting said light unit relative to said illuminating beam path so that the light power detected by said detector is a maximum.

2. The method of claim 1, wherein the adjustment of said lamp unit takes place motor controlled by software.

3. The method of claim 2, wherein said microscope includes an evaluation computer and motors for moving said lamp unit relative to said illuminating beam path, the method comprising the further
5 step of utilizing said computer to drive said motors for moving said lamp unit until said maximum of said light power is reached.

4. The method of claim 3, comprising the further step of applying a gradient method for locating said maximum of said light power.

5. A microscope comprising:

a light unit for supplying a light for transmission along an illuminating beam path devoid of a beam homogenizer;

5 motor drives for adjusting said light unit relative to said illuminating beam path;

a microscope objective defining a pupil plane;

a detector mounted downstream of said pupil plane for detecting the light power of the transmitted light; and,

10 an evaluation and control computer connected to said detector and functioning to sequentially drive said motor drives until a maximum of an integral light power is measured with said detector.

6. The microscope of claim 5, further comprising a specimen table and said detector being integrated into said specimen table.

7. The microscope of claim 6, wherein said microscope defines an optical axis along said beam path; and, said microscope further comprises: a collector optic mounted in said illuminating beam path downstream of said lamp unit; and, an additional motor drive
5 for displacing said collector optic along said optical axis.

8. The microscope of claim 7, wherein said evaluation and control computer further functions to apply a gradient method for locating said maximum of said light power by carrying out the following steps:

5 beginning from a start position and determining the maximum gradient of the light power in dependence upon a position change of at least one of said lamp unit and said collector optic; and, displacing at least one of said lamp unit and said collector

10 optic in a direction of the maximum gradient of the integral light power.

9. A method for adjusting a lamp unit relative to an illuminating beam path of a microscope devoid of a beam homogenizer in said illuminating beam path, said microscope including: an optic defining a pupil plane in said illuminating beam path; an adjustable lamp unit for supplying the light transmitted along said illuminating beam path and a detector for detecting the light power of the transmitted light, the method comprising the steps of:

5 measuring the integral light power downstream of said pupil plane of said optic with said detector; and,

10 adjusting said light unit relative to said illuminating beam path so that the light power detected by said detector is a maximum.

10. The method of claim 9, wherein the adjustment of said lamp unit takes place motor controlled by software.

11. The method of claim 10, wherein said microscope includes an evaluation computer and motors for moving said lamp unit relative to said illuminating beam path, the method comprising the further step of utilizing said computer to drive said motors for moving

5 said lamp unit until said maximum of said light power is reached.

12. The method of claim 11, comprising the further step of applying a gradient method for locating said maximum of said light power.

13. A microscope comprising:

a light unit for supplying a light for transmission along an illuminating beam path devoid of a beam homogenizer;

5 motor drives for adjusting said light unit relative to said illuminating beam path;

an optic defining a pupil plane in said illuminating beam path;

a detector mounted downstream of said pupil plane for detecting the light power of the transmitted light; and,

10 an evaluation and control computer connected to said detector and functioning to sequentially drive said motor drives until a maximum of an integral light power is measured with said detector.

14. The microscope of claim 13, wherein said detector is integrated into said illuminating beam path.

15. The microscope of claim 14, wherein said microscope defines an optical axis along said beam path; and, said microscope further comprises: a collector optic mounted in said illuminating beam path downstream of said lamp unit; and, an additional motor
5 drive for displacing said collector optic along said optical axis.

16. The microscope of claim 15, wherein said evaluation and control computer further functions to apply a gradient method for locating said maximum of said light power by carrying out the following steps:

5 beginning from a start position and determining the maximum gradient of the light power in dependence upon a position change

10

[illegible]